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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/288,569	04/09/99	OHTAKI	H DAIN:499

PARKHURST & WENDEL LLP
1421 PRINCE STREET
SUITE 210
ALEXANDRIA VA 22314-2805

IM51/0908

EXAMINER

ANGEBRANDT, M

ART UNIT

PAPER NUMBER

1756

DATE MAILED: 09/08/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks



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Office Action Summary

Application No.
09/288,569

Applicant(s)

Ohtaki et al.

Examiner
Martin J. Angebrannt

Group Art Unit
1756



☒ Responsive to communication(s) filed on 12/13/1999 and 7/11/2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-27 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-27 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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1 Claim 1,4-8,11 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1,4,8,11 have been interpreted as either shifting or no shifting between the layers may occur. The claims do not require the flexibility of both.

In claim 14, "type" should be replaced by --containing--. (both occurrences)

2 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4 Claims 1-3 and 15-17 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Nakamachi et al. '525.

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Nakamachi et al. '525 teaches in example 1 (see figure 1), the provision of the hologram (16) with a PET film, a PVB film and a glass substrate on either side. The PET film are chosen so that the plasticizer from the PVB does not migrate into the holographic film. (3/45-56) The use of other materials for the intermediate film is disclosed. (3/49-65). A comparison when no intermediate film was used was also prepared and shifting from green to red occurred. (4/41-43 and 4/56-66) Example 2 uses a polyimide intermediate film.

The examiner holds that the PET or polyimide film is meets the limitation of the adhesive without a plasticizer or the like and that the PVB meets the limitations of the plasticizer of the like containing adhesive. The claims are currently open to the inclusion of additional layers.

5 Claims 1,4,6-8,11-13,15-17 and 19-21 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Ueda et al. '598.

The example teaches the with respect to figure 23 a substrate releasable from an adhesive film (101) from figure 22, an adhesive layer (103), a holographic film (2) a second adhesive layer (55), a color tuning film (54), a third adhesive layer (56) and a second substrate (53). The holographic material is omnidex -706 by Dupont, a photopolymeric composition and the adhesives are NOA-61. (13/8-20) Color tuning films are described. (19/41-20/31) The application of the color tuning film directly to the hologram is disclosed with respect to figure 12(b-5).

6 Claims 1,3,6 and 7 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Mizutani et al. '626.

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Mizutani et al. '626 teaches the use of adhesive layers which have the appropriate amount of plasticizers adjacent to the hologram so that no shifting occurs. Examples illustrated in figures 10 and 11 show the effects of the molecular weight of the various adhesives on the replay wavelength and use photopolymeric compositions. Figure 1 shows the structure.

7 Claim 1 is rejected under 35 U.S.C. 102(b) as being fully anticipated by Kai et al. JP 06-056484.

Kai et al. JP 06-056484 teaches with respect to figure 4 a structure which is a substrate, a PVB layer (5), a PET layer (6), a hologram (4), a synthetic resin not containing a plasticizer (2) and a second substrate (3'). [0020].

8 Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morii et al. WO/98/12607.

Morii et al. WO/98/12607 teaches the use of various adhesive agents (45/13-22). The disclosure of the impregnation of the adhesive with encapsulated diffusing materials is also disclosed. (pages 48-50). The use of adhesive layers which do not contain plasticizer or the like and acts as a barrier layer is disclosed. (25/22+).

9 Claims 1-4,6-17 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. '598 and Smothers et al. EP 0407772, in view of Mizutani et al. '626 and/or Kai et al. JP 06-056484.

Smothers et al. EP 0407772 teaches the use of a layered element to transfer monomer. plasticizer or the like between a hologram and an adjacent layer containing these. The swelling or

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shrinking of the fringes is disclosed. curing of the hologram and the diffusion element may be done at any time to reduce diffusion. (8/15-9/7) The use of various plasticizers and surfactants is disclosed. (6/17-38).

It would have been obvious to one skilled in the art to modify the teachings of Ueda et al. '598 by using the adhesive layers disclosed by Mizutani et al. '626 and/or Kai et al. JP 06-056484 in place of the adhesive layer used to control the shifting of the hologram in a manner analogous to that disclosed within Smothers et al. EP 0407772.

10 Claims 1-4,6-17 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. '598 and Smothers et al. EP 0407772, in view of Morii et al. WO/98/12607

It would have been obvious to one skilled in the art to modify the teachings of Ueda et al. '598 by using the adhesive layers disclosed by Morii et al. WO/98/12607 and cure them as needed in place of the adhesive layer used to control the shifting of the hologram in a manner analogous to that disclosed within Smothers et al. EP 0407772.

11 Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. '598 and Smothers et al. EP 0407772, in view of Yamagishi et al. JP 03-157684, Tarumi et al. '107 or Weber et al. '863.

Yamagishi et al. JP 03-157684 teaches the use of polymerizable adhesives comprising acrylates and/or methacrylates together with a photoinitiator which do not damage the hologram.

Tarumi et al. '107 teaches the use of various adhesives including acrylate and Epoxy adhesives which are UV curable (table 1 and 5/40-6/65)

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Weber et al. '863 teaches the use of various adhesives adjacent to holographic recording media including UV curing acrylates. (8/40-62) The use of diffusion elements is also disclosed. (7/6-9)

It would have been obvious to one skilled in the art to modify the teachings of Ueda et al. '598 by using the adhesive layers disclosed by Morii et al. WO/98/12607 and cure them as needed in place of the adhesive layer used to control the shifting of the hologram in a manner analogous to that disclosed within Smothers et al. EP 0407772.

12 The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Miyaji et al. JP 06-266271 teaches the provision of a barrier layer between a plasticizer containing layer and the holographic layer.

Yoshinaga et al. JP 01-040881 and Nakazawa JP 09-005526 are similar to Nakamachi et al. '525 cited above.

Morii et al. '378 is the US equivalent of WO98/12607.

Yu et al. '066 teaches that the polymeric holographic materials are adhesive.

King et al. '310 and Gambogi, Jr et al. '180 teach various usages of diffusion elements.

Kaule CA 2046711 teaches transfer films which use either volume or surface relief holograms.

13 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Angebrannndt whose telephone number is (703) 308-4397.

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I am normally available between 7:30 AM and 5:00 PM, Monday through Thursday and 7:30 AM and 4:00 PM on alternate Fridays.

If repeated attempts to reach me are unsuccessful, my supervisor may be reached at (703) 308-4552.

Facsimile correspondence should be directed to (703) 305-3599.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.



Martin J. Angebrannt
Primary Examiner, Group 1750
July 27, 2000